

N^o 13,363



A.D. 1893

Date of Application, 10th July, 1893

Complete Specification Left, 6th Apr., 1894—Accepted, 10th Aug., 1894

PROVISIONAL SPECIFICATION.

Improved Crutch.

HARRY JONES 15 Bentinck Street Belfast Ireland, Cycle Maker, do hereby declare the nature of this invention to be as follows:—

- A. Velvet covering.
- B. Canvas pouch.
- 5 C. Indian rubber air tube.
- E. Steel frame.
- F. Socket for stock head, detachable or otherwise.
- F. F. Stock head.
- G. Air valve.
- 10 H. Stock.
- I. Indian rubber handle, adjustable.
- J. Indian rubber cushion.
- K. Selfacting cushion slideblock, detachable or otherwise.
- L. Metal tubes.
- 15 M. Screw cap.
- N. Composite-non-slipping foot pad.

The whole is detachable & adjustable and can be fitted on to any crutch stock.

Dated this 15th day of August 1893.

HARRY JONES.

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COMPLETE SPECIFICATION.

Improved Crutch.

I, HARRY JONES of 94 Great George's Street in the City of Belfast, Ireland, Cycle and Sewing Machine Mechanic do hereby declare the nature of this invention and in what manner the same is to be performed, to be particularly
25 described and ascertained in and by the following statement:—

This invention relates to an improved crutch for the use of invalids and cripples and consists of a detachable pneumatic head, a stock of metal tubing or other suitable stuff with an adjustable handle and a self acting foot apparatus operated by the aid of compressed air.

30 The drawings filed with my Provisional Specification will enable my invention to be more fully understood the various parts thereof being separately lettered and thereby referred to in the following description.

I construct the head of the crutch with an external wrapper or covering (A) of velvet or other cloth enveloping a canvas pouch (B) in which I place an air-tube
35 of india-rubber (C) and by means of a perforated, curved and flanged head plate (D) I fasten it to a curved and longitudinally corrugated steel frame (E) having a perforation preferably in the centre through which the mouth of the air-valve (G) passes and furnished near each end with a socket (F) brazed to it or stamped out by a die. The head-plate (D) is perforated to correspond with the
40 mouth of the air valve (G) and the sockets (F, F,) and is secured to the steel frame (E) by a milled nut screwed over the projecting mouth of the air valve. I run a wire band through a hem round the mouth of the canvas pouch and pass the steel frame into the pouch so that the wire band is held between the steel frame and the plate.

45 A cork lining may be placed between the wrapper (A) and the pouch (B) to preserve the air tube (C) from the effects of heat

[Price 8d.]

Jones' Improved Crutch.

The air valve (G) is fastened to the air tube (C) by means of a button at the end of the valve within and a nut outside the tube and is of simple construction, being perforated at the end for the through passage of air and threaded internally to receive an externally threaded tubular plug of brass or other similar material with a lateral perforation near the inserted end and a solid head which seals the perforation in the air-valve when screwed home, a leather washer being placed between such head and the valve the better to prevent an escape of the contained air. 5

The air tube (C) is inflated through the threaded tubular plug and air valve by the aid of an air pump attached to the outer end of the plug and used in the usual way. 10

The sockets (F, F,) receive the stock heads of the crutch. The stock (H) may be made of metal tubing and is fitted with an adjustable handle (I) of india rubber or other suitable material fastened to the stock by means of a metal clip band which is held by a screw at any desired height. 15

The foot of the stock is made of two metal tubes, one of which slides within the other. At the top, within the outer tube, I place an india-rubber block (J) which acts as a cushion and at its lower end I employ a screw cap or adjustable screw cone (M) to keep in position the inner tube which I provide at its external end with a bulbed plug or foot pad (N) composed of india rubber and vegetable or other fibre and fastened in the tube by rubber solution or cement. The top of the inner tube is covered with a leather washer held to it by a flange-headed screw and provides a compressed air chamber (K) between it and the india rubber block (J) which is self acting and gives additional elasticity to the crutch. 20

The stock of my crutch may be either single or bifurcated as shewn in my drawings. 25

Having now particularly described and ascertained the nature of my said invention and in what manner the same is to be performed I would have it to be understood that I do not claim as of my invention or the exclusive use of air chambers or air valves, wrappers pouches curved steel frames or plates, stocks, adjustable handles, india rubber cushions and composite foot pads except when the same are constructed and employed according to my invention nor do I claim the use of tubes, sockets, screw caps or cones, flange headed screws or washers or of any of the separate mechanical parts of the apparatus employed by me but I declare that what I claim is 35

1. The manufacture and use of a detachable pneumatic crutch head constructed and employed substantially in the manner and for the purposes hereinbefore described and shewn in the drawings hereunto annexed.

2. The manufacture and use in pneumatic crutch heads of an air valve constructed and employed substantially in the manner and for the purposes hereinbefore described and shewn in the drawings hereunto annexed. 40

3. The manufacture and use of an adjustable crutch handle constructed and employed substantially in the manner and for the purposes hereinbefore described and shewn in the drawings hereunto annexed.

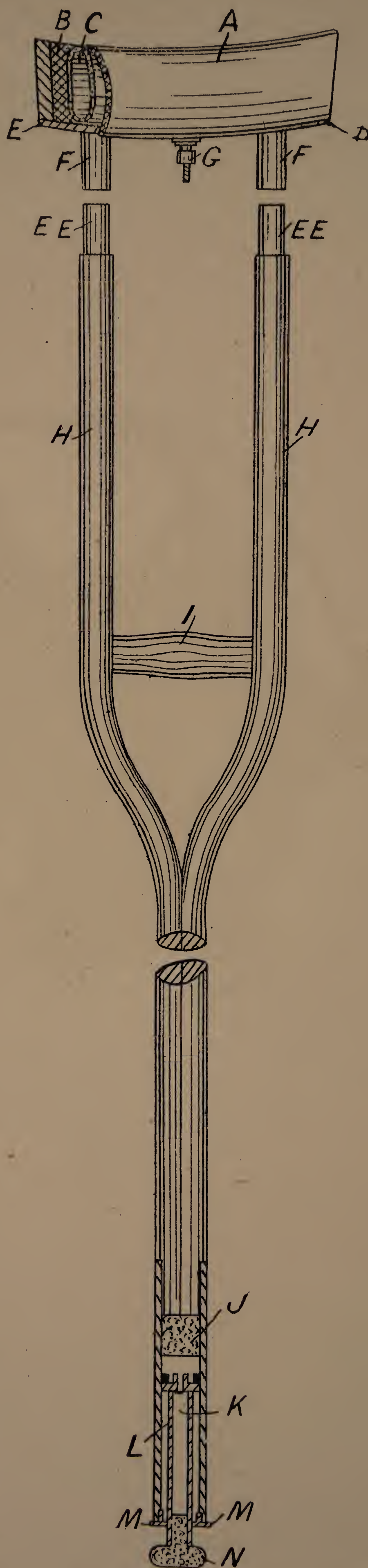
4. The manufacture and use in crutches of a self acting compressed-air foot apparatus constructed and employed substantially in the manner and for the purposes hereinbefore described and shewn in the drawings hereunto annexed, and 45

5. The combination and arrangement of parts constituting my improved crutch constructed fitted and employed substantially in the manner and for the purposes hereinbefore described and illustrated by the drawings on the sheet hereunto annexed. 50

Dated this 27th day of July 1894.

HUGH HYNDMAN,
6, Chichester Street, Belfast, Agent for Applicant.





[This Drawing is a reproduction of the Original on a reduced scale.]

